



REMARKS

Claims 1 – 14 and 40 – 49 are now pending in the application.

AMENDMENT TO THE SPECIFICATION AND DRAWINGS

Applicant has amended Figure 4B to add reference numeral 78 and has correspondingly amended the specification on page 4 to refer to Figure 4B when the element identified with numeral 78 is first mentioned.

CLAIM OBJECTIONS

Applicant has amended claim 47 to correct the informality noted by the Examiner by adding a period at the end of it.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 – 13 and 40 – 49 stand rejected under 35 U.S.C. § 102(b) as being anticipated by von der Heide (U.S. Pat. No. 5,382,853). This rejection is respectfully traversed.

Claims 1, 11 and 40 are the independent claims. Turning to claims 1 and 11, each requires a brushless DC motor that has a rotor assembly with a plurality of coils for producing a magnetic field that have end turns that enclose the rotor assembly so that the rotor assembly is not removable. Contrary to the position taken by the Examiner, the '853 patent does not disclose such a brushless DC motor. In particular, the motor of the '853 patent does not have a plurality of coils having end turns that enclose the rotor assembly so that the rotor assembly is not removable.

The '853 patent is directed to a brushless DC drive motor with an **external** rotor for use in disc drives and like drives. As can be seen from Figures 1 and 2, stator 10 has a stator winding formed from stator coils 21 – 26 which are wound around the necks 11A – 11F of poles shoes 12A – 12F. Stator 10 is mounted on cylindrical sleeve 34 which occupies central cavity 29. "A magnetic **external** rotor comprises an inverted cup-shaped rotor housing 17 with a horizontal top surface 17A and a cylindrical circumferential wall 17B As can be further seen in FIG. 2, circumferential wall 17B has an inner circumferential surface 17C which **encircles** stator 10 and stator coils 21 – 26. Annular and radially magnetized permanent magnet structure 13 is affixed to inner circumferential surface 17C of rotor housing 17." [col. 3, lines 58 – 68, col. 4, lines 1 – 3 (emphasis added)] Thus, in the '853 patent, the coil windings are all inside of rotor 17 and do not enclose the rotor so that it is not removable.

Claims 2 – 10 depend directly or indirectly from independent claim 1 and claims 12 and 13 depend directly or indirectly from independent claim 11, and are allowable for at least that reason.

Turning to claim 40, it requires a brushless DC motor having a rotor assembly, an encapsulated stator defining an interface with the rotor assembly such that an air gap is formed, and a seal applied to the interface to seal the air gap such that the air gap is blocked off. The '853 patent fails to disclose such a DC motor. In particular, contrary to the Examiner's position, the '853 patent fails to disclose a seal applied to an interface with a rotor assembly defined by an encapsulated stator such that an air gap is formed where the seal seals the air gap. The Examiner does not cite to any referenced element as being this seal. The Examiner cites to two sections of the '853 patent, col.

5, lines 38 – 52 and col. 6, lines 7 – 19, as discussing such a seal. Applicants submit that neither section discuss a seal. First, neither section makes express reference to a seal. Second, the structure discussed in these sections does not form a seal. The first section referenced by the Examiner, col. 5, lines 38 – 52, discusses that the motor has a cylindrical air gap 14 separating the magnetic structure 13 inside rotor 17 from the laminated stator stack 10. It also discusses that stator coils 27 form coil ends 27 extending axially beyond stator stack 10. However, this structure fails to show a seal.

The second section referenced by the Examiner, col. 6, lines 7 – 19, describes an alternate embodiment where the pole shoes 12A – 12F can be manufactured asymmetrically. It then describes how pole shoe 12 is shaped so that air gap 14 has a maximum and minimum thickness at certain circumferential locations. Again, this structure fails to show a seal.

Further, an examination of FIG. 2 of the '853 patent shows that there is no seal. As can be seen from Fig. 2, there is no seal sealing air gap 14 between rotor 17 and stator 10 such that it is blocked off.

Claims 41 – 49 depend directly or indirectly from independent claim 40 and are allowable for at least that reason.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office

Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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